

3 January 2015

MEMORANDUM

To: U.S. Fish and Wildlife Service

From: David M. Graber

Subject: Review of Draft Species Report, Fisher West Coast Population Segment and Proposed Rule to List the Distinct West Coast Population Segment as Threatened under the Endangered Species Act.

Per the request of your agency, I have carefully read through both the Draft Species Report and the Proposed Rule.

Let me start with the Draft Species Report. I find that—to the best of my knowledge—it is an accurate and comprehensive synthesis of the scientific literature regarding the fisher and its historic and current distribution in Washington, Oregon, and California. The Report provides an excellent basis for the Proposed Rule, as well as for developing recovery plans.

I particularly considered the scope and severity calculations for the various stressors that are believed to affect fishers on the West Coast. While I have no way to corroborate nor to refute the values assigned to scopes and particularly to severities, they appear qualitatively to be correctly ordered based on what we know at the present time. Moreover, particularly in the case of the SSN population, the sum of natural and anthropogenic mortality factors results is an alarming mortality rate for a species with relatively low fecundity, and may explain its failure to expand north.

I do have a complaint regarding the Report: When reporting from the literature regarding the potential for impacts from various factors, the term “may” is habitually used. For example, “Fig. 15 Sierra Nevada sub-region depicting 2013 fire perimeters as of 10 September 2013 to exemplify that the location of a fire may have impacts on habitat connectivity.” There is no doubt that large and relatively severe mixed-conifer fires—such as several depicted in the figure—damage habitat connectivity. When an effect is likely, very likely, or virtually certain—which is usually what is discussed in the scientific literature—it is inappropriate to reduce its importance to “may,” which signifies “may not” equally. Since the inference is taken from the literature, you can always state that “Jones (2012) concludes that reduction in overhead cover is detrimental to fishers.”

I made about 75 comments in the Report itself. For the most part these are minor and do not belie my confidence in the report as a whole. I hope you find them useful.

The Proposed Rule is an accurate reflection of the findings in the Report. In its discussion of the genetic distinctiveness and structuring in the SSN and NCSO populations, and in the presentation of two alternative DPS considerations, it strikes at a fundamental conundrum: At the present time the reality of fisher on the West Coast is that there are two remaining functional native populations of fisher; SSN is

dangerously small, and NCSO is quite small. There are three disjunct introduced populations: SOC is small and apparently stagnant; NSN and ONP are still experimental. So the “West Coast Distinct Population Segment” is a polite biological fiction. It is highly desirable to preserve the genetic distinctions among the remaining native fishers, as expressed in the Alternatives. It is also highly desirable to expand the range of the fisher to re-occupy what habitat remains in Washington and Oregon. It may be that a rule that includes the full historic and potential range of the fisher, the West Coast DSP, would be the most effective at long-term recovery of the species as a whole if it simultaneously endeavored to preserve the distinctive characteristics of the extant populations while seeking to re-establish the species in other parts of its historic range using imported stock. This is particularly salient when one considers that climate change and its secondary effects—like fire behavior—poses the most serious long-term threat to the California populations. The central and northern Sierra Nevada north of Yosemite, while presently in relatively poor late-seral condition because of its logging history, has the potential to recover fisher habitat that is much broader than to the south. There is, of course, the troubling Tucker et al (2012) findings of a long-standing apparent fisher gap in that region. NWFP lands in Washington and Oregon are, to a significant extent—in a long term trajectory toward recovery of later seral forest characteristics and the potential to host fishers in future.

I hope these comments have been helpful.

A handwritten signature in black ink that reads "Doug M. Gisher". The signature is written in a cursive, slightly slanted style.